Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please amend claims 22, 24, 25 and 27 as indicated below (material to be inserted is in **bold and underline**, material to be deleted is in ~~strikeout~~ or (if the deletion is of five or fewer consecutive characters or would be difficult to see) in double brackets [[ ]]):

Listing of Claims:

1. (Cancelled)

2. (Previously Presented) A printhead having a circuit with plural resistors and a power source, comprising:

a metal stack formed within the circuit and comprised of a first metal layer comprising a power bus coupled to the power source and a second metal layer having a portion that comprises the resistors;

at least one power via formed within the circuit as an interface between the first metal layer and the second metal layer, wherein, at the power via, the second metal layer comprises a separation barrier located adjacent the first metal layer and between at least one resistor of the plural resistors and the power bus; and

a controller bus that is connected to the at least one resistor at a controller via, wherein, at the controller via, the second metal layer comprises a separation barrier located adjacent the first metal layer and between the at least one resistor of the plural resistors and the controller bus.

3. (Previously Presented) The ink jet printhead of claim 2, wherein the circuit is a thin film circuit and the first metal layer is comprised of Aluminum Copper Silicon.

4. (Previously Presented) The ink jet printhead of claim 2, wherein the circuit is a thin film circuit and the second metal layer is comprised of Aluminum and Tantalum Aluminum.

5. (Previously Presented) The ink jet printhead of claim 4, wherein a first portion of the Tantalum Aluminum comprises the corresponding at least one of the resistors and a second portion of the Tantalum Aluminum connects the corresponding at least one of the resistors to the power bus.

6. (Previously Presented) The ink jet printhead of claim 2, wherein ink corrosion is terminated by the separation barrier at the power via.

7. (Previously Presented) The ink jet printhead of claim 2, wherein the plural resistors comprise a set of resistors, wherein for the set of resistors, power is routed from the power bus through a plurality of corresponding power vias to each resistor of the set of resistors.

8. (Previously Presented) The ink jet printhead of claim 2, wherein the plural resistors comprise a set of resistors, wherein for the set of resistors, power is routed from each resistor of the set of resistors to corresponding controller vias.

9. (Previously Presented) The ink jet printhead of claim 2, wherein each resistor of the plural resistors is associated with at least one power via that separates metal of the resistor from the power bus.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Previously Presented) A method of manufacturing a circuit for an ink jet printhead, the circuit having plural resistors, a power bus and a controller bus, the method comprising:

creating conductive trace routes from the power bus to power vias associated with each resistor and creating conductive trace routes from the power vias associated with each resistor to each resistor and from the controller bus to controller vias associated with each resistor and creating conductive trace routes from the controller vias associated with each resistor to each resistor; and

creating a separation barrier to substantially prevent spreading of ink corrosion from the resistors to the power bus and the controller bus, wherein the separation barrier comprises separation barrier portions within the power vias and separation barrier portions within the controller vias.

18. (Previously Presented) The method of claim 17, wherein the separation barrier portions comprise a non-corrosive metal and the conductive trace routes from the power vias associated with each resistor to each resistor comprise a corrosive metal.

19. (Previously Presented) The method of claim 17, wherein substantially preventing spreading of the ink corrosion from the resistors to the power bus and the controller bus comprises separating a corrosive metal portion of the conductive trace

routes from the power vias associated with each resistor to each resistor from the power bus by the separation barrier.

20. (Previously Presented) The method of claim 17, wherein the circuit is a thin film circuit and includes a metal stack comprised of a first metal layer and a second metal layer, wherein the second metal layer is conformed with the power vias and the controller vias and wherein the separation barrier portions comprise second metal layer portions in the power vias and in the controller vias and wherein at least one power via has a separation barrier portion between a conductive portion of a conductive trace route from the at least one power via to the resistor and the power bus.

21. (Cancelled)

22. (Currently Amended) A fluid ejection device comprising:

a first metal layer comprising a portion for providing power to a resistor;

a non-metal layer overlying the first metal layer and comprising a via;

a second metal layer overlying the non-metal layer, conformed with the via and comprising a top conductive layer portion over a bottom layer portion, wherein the bottom layer portion comprises a resistor and an electrical connection portion, wherein the first metal layer is electrically connected to the electrical connection portion of the bottom layer portion at the via

wherein, at the via, the first metal layer is separated from the top conductive layer portion by the electrical connection portion of the bottom layer portion; **and**

a controller bus that is connected to the resistor at a controller via, wherein, at the controller via, the second metal layer comprises a separation

barrier located adjacent the first metal layer and between the resistor and the controller bus.

23. (Previously Presented) The fluid ejection device of claim 22, wherein the electrical connection portion comprises a corrosion barrier between the top conductive layer portion and the first metal layer.

24. (Currently Amended) The fluid ejection device of claim [[21]]**22**, wherein the first metal layer comprises Aluminum Copper Silicon.

25. (Currently Amended) The fluid ejection device of claim [[21]]**22**, wherein the top conductive layer portion comprises Aluminum and the bottom layer portion comprises Tantalum Aluminum.

26. (Cancelled)

27. (Currently Amended) A fluid ejection device comprising:

a first metal layer comprising a portion for providing power to at least first and second resistors;

a non-metal layer overlying the first metal layer and comprising first and second vias corresponding to the first and second resistors; and

a second metal layer overlying the non-metal layer, conformed with the first and second vias and comprising a top conductive layer portion over a bottom layer portion, wherein the bottom layer portion comprises first and second resistors and first and second electrical connection portions corresponding to the first and second resistors;

wherein the first metal layer is electrically connected to the first electrical connection portion at the first via and the first metal layer is

electrically connected to the second electrical connection portion at the second via; and

wherein, at the first via, the first metal layer is separated from the top conductive layer portion by the bottom layer portion, and, at the second via, the first metal layer is separated from the top conductive layer portion by the bottom layer portion; **and**

a controller bus that is connected to the first resistor at a first controller via and the second resistor at a second connector via, wherein, at the first and second controller vias, the second metal layer comprises a separation barrier located adjacent the first metal layer and between the first and second resistors and the controller bus.

28. (Previously Presented) The fluid ejection device of claim 27, wherein the first electrical connection portion comprises a corrosion barrier between the top conductive layer portion and the first metal layer and the second electrical connection portion comprises a corrosion barrier between the top conductive layer portion and the first metal layer.

29. (Previously Presented) The fluid ejection device of claim 27, wherein the first metal layer is comprised of Aluminum Copper Silicon.

30. (Previously Presented) The fluid ejection device of claim 27, wherein the top conductive layer portion comprises Aluminum and the bottom layer portion comprises Tantalum Aluminum.

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Previously Presented) A method of manufacturing a fluid ejection device, comprising:

providing a first metal layer comprising a power bus and a FET bus;

providing the second metal layer, a second metal layer comprising a conductive layer portion and a corrosion-resistant layer portion;

providing a first electrical connection between the power bus and the second metal layer and a second electrical connection between the second metal layer and the FET bus, wherein the first and second electrical connections are made through the corrosion-resistant layer portion.

37. (Previously Presented) The method of claim 36, further comprising providing a via between the first metal layer and the second metal layer, wherein a portion of the corrosion-resistant layer portion at the via comprises a corrosion separation barrier.

38. (Previously Presented) The method of claim 37, wherein the via comprises a power via.

39. (Previously Presented) The method of claim 37, wherein the via comprises a FET via.

40. (Previously Presented) A fluid ejection device comprising:

a first conductive metal layer comprising a first portion for providing control signals to a resistor and a second portion for providing power to the resistor;

a second conductive metal layer comprising the resistor, a power portion and a control portion, wherein the control portion is electrically connected to the first

portion of the first conductive metal layer through a control via and the power portion is electrically connected to the second portion of the first conductive metal layer through a power via;

wherein the second conductive metal layer comprises a corrosion-resistive layer portion, wherein the corrosion-resistive layer portion comprises a first separation barrier, between the control portion of the second conductive metal layer and the first portion of the first conductive metal layer at the control via, and a second separation barrier, between the power portion and the second portion of the first conductive metal layer at the power via.